

What is claim d is:

1. A method of recording time information associated with digital data streams, the method comprising the steps of:

(a) recording first time information on a recording medium, the first time information being part of management data for managing presentation data; and

(b) recording second time information on the recording medium, the second time information being time information of the presentation data,

wherein a format of the first time information coincides with a format of the second time information.

2. The method according to claim 1, wherein the presentation data include video data.

3. The method according to claim 2, wherein each of the first and second time information is represented in the format of packet arrival time extension and packet arrival time base.

4. The method according to claim 3, wherein the packet arrival time extension is incremented at a rate of 27 MHz, and the packet arrival time base is incremented at a rate of 90 KHz.

5. The method according to claim 2, wherein in the step (b), the presentation data are represented in data object units, and the second time information is time information for each of the data object units.

6. The method according to claim 5, wherein the data object units are grouped into data objects, and in the step (a), the first time information is time information for each of the data objects.

7. The method according to claim 1, wherein the step (a) includes generating the first time information to be recorded on the

recording medium, and the step (b) includes generating the second time information to be recorded on the recording medium.

8. The method according to claim 1, wherein in the steps (a) and (b), the recording medium is a DVD.

9. An apparatus for recording time information associated with digital data streams, the apparatus comprising:

recording means for recording first time information and second time information on a recording medium, the first time information being part of management data for managing presentation data, the second time information being time information of the presentation data,

wherein a format of the first time information coincides with a format of the second time information.

10. The apparatus according to claim 9, wherein the presentation data include video data.

11. The apparatus according to claim 10, wherein each of the first and second time information is represented in the format of packet arrival time extension and packet arrival time base.

12. The apparatus according to claim 11, wherein the packet arrival time extension is incremented at a rate of 27 MHz, and the packet arrival time base is incremented at a rate of 90 KHz.

13. The apparatus according to claim 10, wherein the presentation data are represented in data object units, and the second time information is time information for each of the data object units.

14. The apparatus according to claim 13, wherein the data

object units are grouped into data objects, and the first time information is time information for each of the data objects.

15. The apparatus according to claim 9, further comprising:
means for generating the first time information to be recorded on the recording medium; and
means for generating the second time information to be recorded on the recording medium.

16. The apparatus according to claim 9, wherein the recording medium is a DVD.

17. A recording medium for recording time information associated with digital data streams, the recording medium comprising:

a recording layer;
first time information stored on the recording layer, the first time information being part of management data for managing presentation data; and

second time information stored on the recording layer, the second time information being time information of the presentation data,

wherein a format of the first time information coincides with a format of the second time information.

18. The recording medium according to claim 17, wherein the presentation data include video data.

19. The recording medium according to claim 18, wherein each of the first and second time information is represented in the format of packet arrival time extension and packet arrival time base.

20. The recording medium according to claim 19, wherein the

packet arrival time extension is incremented at a rate of 27 MHz, and the packet arrival time base is incremented at a rate of 90 KHz.

21. The recording medium according to claim 18, wherein the presentation data are represented in data object units, and the second time information is time information for each of the data object units.

22. The recording medium according to claim 21, wherein the data object units are grouped into data objects, and the first time information is time information for each of the data objects.

23. The recording medium according to claim 17, wherein the recording medium is a DVD.